Wostach.

Page 1 of 7 4-10 12-14-ev 1632 f. Z.

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/484,629

DATE: 11/24/2000 TIME: 12:31:52

Input Set : A:\robins.txt

Output Set: N:\CRF3\11242000\I484629.raw

```
ENTERED
3 <110> APPLICANT: Medical Research Council
5 <120> TITLE OF INVENIION: Obesity Gene
7 <130> FILE REFERENCE: 18396/1140
9 <140> CURRENT APPLICATION NUMBER: 09/484,629
10 <141> CURRENT FILING DATE: 2000-01-18
                                                                                     RECEIVED
12 <150> PRTOR APPLICATION NUMBER: GB 9910522.3
13 <151> PRIOR FILING DATE: 1999-05-06
15 <160> NUMBER OF SEQ ID NOS: 25
17 <170> SOFTWARE: Patentin version 3.0
                                                                                        CEC 11 2000
19 <210> SEQ ID NO: L
20 <211> LENGTH: 924
21 <212> TYPE: DNA
22 <213> ORGANISM: Rattus sp.
                                                                                     WECH CENTER 1600, CSCO
24 <400> SEQUENCE: 1
25 tyteatytty egggetitga acequetyge egeqeggeec gggggecage ecceaaccet
27 geteettetg eccqtqcqcq qeeqeaagac ecqccacqat ecqcetqcca agtccaaqgt
                                                                        120
                                                                         180
29 egygegegtg aaaatgeete etgeagtgga eeetgeggaa tigiteyigt igaeegageg
31 ctuccgacag taccgggaga cggtgcgcgc tetcaggcga gagttcacat tggaggtgcg
33 agggaaatig cacqaqgcoo qaqooqggqt totqgotgag ogcaaggogo aagaggocat
                                                                         300
35 cagagageac caggagetga Eggeetggaa eegggaggag aaeeggagae tgeaggaaet
                                                                         360
                                                                        420
37 acqqatagot aggittgoago toqaaqoada qqeecaqqaq otgeqqoagq otgaqgiteca
39 ggcccagagg gcccaggagg agcaggcttg ggtqcaactg aaagaacaag aagttotcaa
                                                                         480
41 actgcaggag gaggccaaaa acttcatcac tegggagaac etggaggcac ggatagaaga
                                                                         540
43 ggcettggae tereegaaga yttalaactg ggeggteace aaagaaggge aggtggteag
                                                                        600
45 gaactgagaa cagaggooto Loaggoodaa ataagganag tgottgoota gggaotggat
                                                                        660
47 attggggtag aaattggtge atrocaygag ggtggeacag cettgtecag agcageeece
                                                                         720
                                                                         780
49 atteatheta gattiggear caggitatagh accigitety acaecacata caaacteegg
51 acagcattaa actologgaa gitoolaloa cacagaagat cagaciqgac igiooccici
53 agaagccaag agolgtoloo lgaqttlott ggaalagigt gagcccaatg titootgott
                                                                         900
                                                                         924
55 ttataaataa actattggaa agca
58 <210> SEQ ID NO: 2
59 <211> LENGTH: 998
60 <212> TYPE: DNA
61 <213> ORGANISM: Rattus sp.
63 <400> SEQUENCE: 2
64 atgolacycy cyclyagony collygyddog gygaddoddl gdaggdddog ggorddlolg
66 gtgctgccag cgcgcggccg caagacccgc cacgacccgc tggccaaate caagatcgag
68 cgagtgaaca tgccgcccgc ggtggaccct gcggagtlet tcgtgctgat ggagcgttac
                                                                         180
70 raycactace geraqaeeyt gegegeeete aggatggagt tegtgteega ggtgeagagg
                                                                         240
                                                                         300
72 aagglgcacg aggcccgage cgyggtletg geygagegea aggccelgaa ggacgccgcc
74 gagcaccard anothalige organical geographic gaggetica equipment
76 alagogaygo Lyoggcayga ggagogygag caggagoago ggcaggogtl ggagoaggoo
                                                                         420
78 rgraaggoog aayaggigoa qqootigqqog ragoqcaagg agoqggaagi gotigoagotig
                                                                         480
80 caggaagagg tgaaaaactt catcaccega gaguaectgg aggcaegggt ggaagcagea
                                                                         540
                                                                         600
82 ttggactocc ggwagaacta cawctgggcc atcaccagag agyggctggt ggtcaggcca
84 caacgraggg actrottaggg georagtuag gacagtigene gecagggace atglatigtat
86 catggeggaa qagttggeee tgacetggaa taaageagtt ggtgttgett atgaggaagg
```

RAW SEQUENCE LISTING
PARENT APPLICATION: US/09/484,629

DATE: 11/24/2000 TIME: 12:31:52

88 t	teageetta t	ccagcacag c	cttcacgtt	ttgccctctg (etgteaccac	ttggtcagaa	780 840
90 a	cttccaaac 🤄	geagtgeeet g	ttctgccgg	tgtgtaaage (cteagegeae	aggagaeee	900
92 t	agagtqqtt 1	tecateteae a	gagaatcag	acaggecaca (geneceteag	geagecaggi	960
94 c	atctgagta 1	cattaagag t	agtgatggg	aagattacag 1	totgagggee .	aaacqtgcct	998
		ittgtaaata a	agttttgtt	ggaacaca			720
	210> SEQ H						
	<2.11> LENG.						
	<212> TYPE						
		NISM: Homo s	apiens				
104	<400> SEQUI	ENCE: 3			************	00000000000	6.0
105	tgtcatgttg	egegetetga	accyccigyc	geageggeeg	ggagaeegge	antoganocc	120
107	getgetectq	eceqtqcqcq	geegeaagae	cedecardae	- Cogodogoda	tarcourages	180
109	oggaegggt g	cayacycctc	ccyccytyga	ceergeggaa	rectedge	tgactgageg	240
111	ctacqqacaq	taccgygaga	coatacacac	Leteaggeta	gagetteacge	aggaggegat	300
113	aaggaaattg	cacqagqccc	dadccddddr	tetggeegag	egeaaggege	tagaagaaat	360
115	cacqqaqcac	egggagetga	tggcctgdaa	ccgqgacgag	aaceggegaa	et abaacaca	420
117	acggatagcg	aggittqcaqc	tiggaagcaca	qqcccaggag	gtgcagaagg	cogaggeeea	480
	gogocagagg	gctcaggagg	agcaggeting	ggtgcaactg	aaagagcaag	aagtyctcaa	540
121	gotiqoaqyaq	gaggcaaaaa	acticateac	Legggagaac	cuggaggcac	ggatagaaga	600
1.23	agcqttgqac	t.ct.ccgaaqa	gitacaactq		aaaqaaqqqq	aggtggtcag	660
125	gaactgagca	cagagacttc	tgggggcca		gradithos	agggtetgtg gageaacete	720
127	Lactgqgata	ggaat.t ggt.a	naticecagga		geograficea	cctqttctqg	780
129	agtcactcca	ggataggaac	teaceacety	actgggaact	cccagaigue	nenganate	840
131	caccacagte	aaactgaggg	cagcattaaa	cletgggaag	Licetatege	acagaggacc	900
133	ggaetggaet	gratecetet	agaagecaag	cttqtcttqt	aagtetetty	gagiceetgig	943
		Liceigeilt	tataaataaa	gtattggage	cca		74.3
	<210> SEQ						
	<211> LENG						
	<212> IYPE						
		NISM: Homo	sapiens				
143	<400> SEQU	ENCE: 4	4		tocoagetat	atagtgagac	6.0
144	tgaectergt	ggatetgata	tacatgtaac	j tgadagadda	coogagecac	atataactcc	120
146	ctqtgcaaqq	aaggatggag	Egcacgitec	ctyatgitca	gageaaceee	gogotacee	180
148	aggtaggtga	gatgagagga	agaggguggc	: cuttatana	getet each	qqcctggaag	240
150	Ligggagaag	gargraagca	gactetgitt	: LCt.LCt.gaga	. aanatotaat	attgcagtca attgacaaca	300
152	geneaggete	ct.cagaccct	ccraaguqca	i galleterge	aquarcegge	gttgacaaca	360
154	ctaatgagta	qqatqagact	thagtiedel	. agecercate	e atalataca	, gattaccaac : Lucaetgeci	420
156	aucterdena	gaggagagec	atelaceli	, gggacagatg , toatttoass	r dettedgeed	tgcactgect tggtctcaag	480
158	cetattrata	troattgrag	aggaaganag	, cartitiada	ger centeacae	. regacceagh	540
160	gtqqqaaqac	eccagercag	quqaaaqaqq	, acaaycy.ca	- desusactae	qccacccagt ccaagaccac	600
162	agaaaacaag	tgatcactga	Lacigagaat	: tattaataa:	ttagaaacct	. aaagtttaaa	660
164	aacagggcag	tgcaatgcaa	ggaaaaggu	. egitegerega	ctanottaac	, tagetagaag	720
166	gtgcatcagg	agaacgctta	ctcaaagagg	, ataoagaaga	, caccadias	. ccagagaacc	780
168	ct.cagaatt.t	. errgeateag	cccuggaage	y glacacagge	. caceggegg	ccagagaacc tootottata	840
170	acacgetitig	gggcggtgtc	caagettgte	, aacaaytayy	, tecandote	tggtgttgta coctogacco	900
172	getgteattg	gragagaata	cageccage	adocycyguc ataaacoaa	, cocaaqgeqe	. tecacetaca	960
174	teceactela	i neegagaete	- cagggacgcg	, achdaccado	r ticcaaacac	teegeetang ggngeaggeg	1020
176	-ddddugddda	caggagatte	- Cogligatique	, celegaceae	· aacceggaea	coageccea	1.080
17.78	clagelglea		, ,	, 0199009090	2 2200000000	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•

RAW SEQUENCE LISTING DAIE: 11/24/2000 PATENT APPLICATION: US/09/484,629 TIME: 12:31:52

							1140
180	accetgeted	ttotgocogt	gegeggeeea	eggeceeget	cattetegge	tectttttcc	1140
192	troposopata	actagattac	agetegaage	acaggcccag	gagetgegge	aggctgaggt	1200
184	ccaqqcccag	agggcccagg	aggagcaggc	ttgqqtqcaa	ctgaaagaac	aagaagteet	1260
186	caaactgcag	gtgggcgag	gtcgtgagga	atgtgqytat	tggagattee	ggtgagggag	1320
188	gctctgggga	gagcagcaca	gggt.gt.caag	tgaccagtet	tcaggagget	tototototy	1380
190	ctctgcacac	acagagtacc	teccagacaa	tggtcaatga	aaggttacag	getagtattg	1440
192	ccqtqtqaaa	cttgaaggtc	agggaaacca	taaatgagaa	tggagetgtt	tttattgigt	1500
194	aagggagagt	gacaaggttg	agagagticca	ccaccccgca	entececeeg	cccccaatca	1560
196	ggttgtcacg	attegatteg	ttettgggtt	gtygetgaga	gatetgatgg	gtaattgtcc	1620
198	gaggaagagg	gatataatyg	ttgaggtcac	ctagtacagt	tgtgctggcc	tattqqtqqq	1680
200	acactcaaag	gggccctggg	clctlttgac	accettetta	aggtgggcta	gagacagtaa	1740
202	attatocago	cadecadete	tgagagatec	cacqtaqcta	acctitetet	tecegtagga	1800
204	ggaggccaaa	aacttcatca	ctcgggagaa	cctggaggca	cggatagaag	aggeettgga	1860
206	ctctccquag	agttataact	gggcggtcac	caaagaaqyg	caggtggtca	ggaactgaga	1920
208	acagaggeet	et caddececa.	aataaqqaca	glgctlgcct	agggactgga	tattggggta	1980
210	gaaattggtg	cateccagga	uggtggcaca	geettgteea	gageageeee	cattcattct	2040
212	agatttggca	ceaggtatag	tacctqttct	qacaccacat	acaaactccg	gacagcatta	2100
93.4	apotetogga	auticctaic	acacagaaga	Leagaetgga	ctyteccete	tagaagecaa	2160
216	gagetutete	ctgagtttct	tagaatagta	tgagcccaat	gtttcctgct	tttataaata	2220
218	aactattaga	aagcaaagcc	tittattata	tagettyett	titcttqttq	tagaataagt	2280
220	trattratec	cauttatttq	ggtcttaagg	-ttattagcca	aaagccagtt	cacctaactq	2340
222	anceaggagt	tagitatoig	intit tucticaa	Lectaggett	Lgctgggtag	ggtcaggtgt	2400
224	at ccaagate	cagaaagcaa	aaaqqqtqcc	-cagtttatae	tgggaagget	tecceqteag	2460
226	teatttctel	aaccqqaccc	tgecetgaea	cagogtcatt	ggactaccca	gcagacagta	2520
228	aactecacte	taaacccgct	tettgeggte	agttgctgtc	cttcagtgtg	tgtaagcagt	2580
230	goccagacag	caccettagg	Laticatitica	agactictictic	accttggtct	gotttacgti	2640
232	tagtttgatt	tagttlattc	tagtttttga	gargaggent	-ttcactggaa	cet,ggcacte	2700
23.1	aghabhtaga	ctacccaacc	agetageete	agagaatgca	tetqegtatg	cttgcctggc	2760
236	getggaatte	ggtgcacatg	getttgatgt	gtaccgggga	teagacacag	atgtttcatg	2820
238	agtgeagtge	atgcctgtta	gtggtagagc	tic			2852
	<210> SEQ						
242	<211> LENG	TH: 20					
243	<212> TYPE	: DNA					
244	<213> ORGA	NISM: Mus s	р.				
246	<400> SEQU	ENCE: 5					2.0
247	ttdacaccac	totgrogaac					20
250	<210> SEQ	TD NO: 6					
251	<211> LENG	TH: 20					
252	<212> TYPE	: DNA					
253	<213> ORGA	NISM: Mus s	р.				
255	<400> SEQU	ENCE: 6					0.0
256	aggaggaaga	caggtgaaag					20
	<210> SEQ						
260	<211> LENG	TH: 20					
261	<212> TYPE	: DNA					
262	<213> ORGA	NISM: Rattu	s sp.				
264	<400> SEQU	ENCE: 7					0.0
		gget ttgaac					20
	<210> SEQ						

RAW SEQUENCE LISTING DATE: 11/24/2000 PATENT APPLICATION: US/09/484,629 TIME: 12:31:52

269 <211> LENGTH: 20						
270 <212> TYPE: DNA 271 <213> ORGANTSM: Rattus sp.						
71 <213> ORGANISM: RACCUS SP. 73 <400> SEGUENCE: 8						
274 totttoagtt goacceaage						
277 <210> SEQ 1D NO: 9						
278 <2.11> LENGIH: 20						
279 <212> TYPE: DNA						
280 <213> ORGANISM: synthetic construct						
282 <400> SEQUENCE: 9	2.0					
283 gtgataggaa cttcccagag	20					
286 <210> SEQ 1D NO: 10						
287 <211> LENGIH: 42						
288 <212> TYPE: DNA 289 <213> ORGANISM: synthetic construct						
291 <400> SEQUENCE: 10						
292 gootogigea attitocotog caeciccaat glgaacicto go	42					
295 <210> SEO TD NO: 11						
296 <211> LENGTH: 42						
297 <212> TYPE: DNA						
298 <213> OPGANTSM: synthetic construct						
300 <400> SEQUENCE: 1.1						
301 teetgegagg aauaaggage egagaatgag eggggeegtg gg	42					
304 <210> SEO ID NO: 12						
305 <211> LENGTH: 3264						
306 <212> TYPE: DNA						
307 <213> ORGANISM: synthetic construct						
309 <400> SEQUENCE: 12	6.0					
310 tgacetetyt ggatetgata tacatytaag tgacaqueca teegaqetat atagtgagac 312 etytgeaagg aaggatggag tgeaegttee etgatyttea gaycaaceet ytyteaetee	120					
312 orgranding danggargaga agagging oringunorg doctoolarg georgaaq	1.80					
316 ttgggagaag gatgtaagca gactctgttc tottctgaga aatatcaggt attgcagtca	240					
318 goccaggete etcagaceck cotaagtgea gattetetge agaatetggt gittgacaaca	300					
320 ctaatgagta ggatgagant teagtteeet ageenteace gteagntiet gattancaae	360					
322 aantologoa gaggagagog atotacottt gggacagatg otototgeco tycactgoot	420					
324 cetatriete tieartutag aggaagatag taetitaaaa gehteataaa iggicieaag	480					
326 ghaggaagac cooggotoag gtgaaagagg acaagogtoa cotcacacag gocacceagt	540					
328 agagaacaag tgatcactga tactgagaac totggcaaft gcayagetge ccaagaccac	600					
330 aacagggcag tgcaargcaa ggaaaaggrt tgttgctcga trgcaaacct aaagtttaaa	660					
332 gtgcalcagg agaacgctta ctcaaagagg aagtglaagc claacttaag tagclagaag	720 780					
334 ctcagaatti etigcatcag coetggaagg gtacacagge caccggiggg ccagagaacc	840					
336 acacgettig gggcggtgte caagettgtg aacaagtagg caagagegee tggtgtigta	900					
338 getigheathg geoggeaata cageeeageg aachgliggte heeaaggige cochegaeee 340 Leecachela eeegagache cagggaegeg aligggeeaga cageaagage Leegeelaeg	960					
340 Leccaetela decgagaete daggaegeg algogologia dagcaagage recognocadg 342 ggggegggga daggagatte degtgatget detegadeae ticeggadag ggegdaggeg	1020					
342 qqqqqqqqq caqqaqatta toqtqatqtt obtoqactaa teecqqataa qqoqaqqqq caqqaqqqa = 344 ctaqetqtca tqttqqqqq ttttqaaccqc otqqccqqqqq qqccqqqqqq caqqaccca	1080					
346 accetyctne thetgecogn gegoggeege aagaceegee acgathegee igenaagtee	1140					
348 aaggloggge gegtgaaaat geoteetgea giggaeeetg eggaatigit egigitgaee	1200					
350 gagegetace gacagtaceg ggagaeggtg egegetetea ggtgtgtgta augggeagge	1.260					

RAW SEQUENCE LISTING PATENT APPLICATION: US/09/484,629

DATE: 11/24/2000 TIME: 12:31:52

		_			accet and and	+1.00000000	1320
352	gyccttcggc	geeceetiggg	aagtgetggg	grtggaggat	gggtgeteae	cigaageceg	1380
354	tecteaceca	ggcgagagtt	cacattggag	gtgcgaggga	aaccgcacga	ggcccgagcc	1440
356	ggggttctgg	ctgagegeaa	ggcgcaagag	gocatcagag	ageaceagga	queque	1500
358	tggaaccggg	aggagaaccg	gagactgcag	gaactacggt	gcgagaggcg	eggigengig	1560
360	tgggctgggc	taggeteace	caeggeeeeg	cteattctcg	goudette	otecheagga	1620
	tagctaggtt	geageteqaa	gcacaggece	aggagetgeg	geaggeegag	greeaggeen	1680
364	agaygyccca	ddaddadcad	gettaggtae	aactgaaaga	acaayaagtt	CECadactyc	1740
366	aggtgggccg	aggt cqt gag	gaatgtgggt	attggagatt	ccggtgaggg	aggototggg	1800
368	gagageagea	cagggtgtca	agtgaccagt	cttcaggagg	ettateteta	Egeretgeae	1860
370	acacagagtg	cctcccagac	aatggtcaat	gaaaggttac	aggetagtat	tgccqtgtga	
372	aacttgaagg	teagggaaae	cataaatgag	aatggagctg	tittatigt	gtaagggaga	1920
374	gtgacaaggt	tgaqaqaqtc	caccaccccg	cacctccccc	egeececaat	caggittgtca	1980
₹76	cgattcgaft	cgttcttgqg	t.tgtggctga	gagatotgat	gggtaattgt	ccgaggaaga	2040
378	gggatataat	ggt.tqaggtc	acctagtaca	gt.tgt.gctgg	ccrattggtg	ygacactcaa	2100
380	aggggccctg	ggetettttg	acaccolitct	taaggtgggc	tagagacagt	aagttatgca	2160
382	ggeagecage	totgagagat	decaeghage	taacetttet	cttcccqtaq	gaggaggeea	2220
384	aaaacttcat	cactogggag	aacctggagg	caeggataga	agaggeettg	gactotooga	2280
386	agagtLataa	ctiggggggtc	accaaaqaag	ggcaggtggt	caggaactga	gaacagaggc	2340
388	eteteaggee	cadataaqqa	caqtgettge	ctagggactg	gatattgggg	tagaaattgq	2400
390	tgcatcccag	gagggtggca	cagcettqte	cagageagee	cccattcatt	ctagatttgg	2460
392	caccaggtat	agtacctgtt	otgacaceae	atacaaactc	cggacagcat	taaactetge	2520
394	gaagt.tccta	Loacadagaa	gat cagactg	gactgreece	tetagaagee	aagagctgtc	2580
396	tectgagttt	ct.tggaatag	tigtigagedea	atgtfteetg	ctittataaa	taaactattq	2640
398	gaaagcaaag	cctittqtta	tataacttac	tittetigt	tgtagaataa	gtttatttgt	2700
400	cccagttatt	tgagtettaa	gottattage	caaaaqccaq	tteacctaac	tgagccagga	2760
402	attagttate	Lactitiacto	aatectuude	t.t.t.gct.gggt	agggtcaggt	gtgt.ccaagg	2820
404	tecagaaaage	aaaaagggtg	ceccattict	cetgggaagg	ctreecegie	agreatitet	2880
4.06	gtaaccagac	cetaccetaa	cacagogtoa	tiggactacc	caycagacag	tagacticcac	2940
408	totagaccod	cttcttacaa	traditions	tecttcagtg	tgtgtaagca	gtggccagac	3000
410	aggaggette	antateattt	caagactete	teaccttggt	ctactttaca	Lttqqtttqa	3060
410	tttaalitat	tetantitt	gagacgaggc	ctttcactgg	aacctggcac	tragtatita	31.20
411	ceeggeenge	congetagee	-tcadadaatd	catctgcgta	racttaccta	acactagaat	31.80
414	tacatacoca	tagetttgat	atutaccaaa	gatcagacac	agatgtttcu	tgagtgcagt.	3240
		tagtggtaga		gaccagacac	494090000	~y-y-y-y-	3264
			9000				
	<21.0> SEQ <21.1> LENG						
	<212> TYPE						
		NISM: Rattu	s sp.				
	<400> SEQU			Latantana	an oat at uga	genegaagt a	60
427	geggeegeat	, aatacgacte	actalaggga	Lotggtggag	gacccattge	tographicia	120
429	gagaagtggt	Leteaacett	cetagtgetg	agaccettta	acacayetee	cogligitation	180
431	gggaaacccc	ctectgeaac	cataaaataa	thittyttac	tacetcataa	Caagiigticgo	240
433	tactchattg	ctatgaattg	taaaataaat	gtgtcttcca	auggictiag	angacuccog	300
	tgaaagggtc	attetacece	Laagaggt.ca	Lgatchacag	gurgagaacc	actigationed	360
437	agtaaccttc	acttgagtcc	atatecteca	tgaaggtatg	gaagtcaata	addergaget	420
439	tcaagcctca	tcaaaatggg	tedatedect	ggtacagtgt	gaqtggaaga	alacecacca	
44±	tacgghcact	ggaaggagga	tgtctgaagg	gtottagatt	gugteaaggg	greergaata	480
443	traggatrtg	acgaaqcagq	chagt.cat.gt.	ttcatgaaga	ctacaggiat	grgatabaac	540
445	Lgcaagctgg	aaaagtaccc	actgageccg	tglggetelg	ctgggalltg	gaggeatgag	600

- , , -

VERIFICATION SUMMARYDATE: 11/24/2000PATENT APPLICATION: US/09/484,629TIME: 12:31:53